Financial Education and Access to Savings Accounts: Complements or Substitutes?

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This presentation is the result of independent research and does not (necessarily) represent the views of the CFPB or of the United States government.
Motivation

- What is value of “emergency savings” and avoiding high-cost credit products?

- International: microcredit $\rightarrow$ microsavings

- Can saving become a habit among youth?

- Obstacles to saving
  - Access $\rightarrow$ information $\rightarrow$ preferences
Mixed results on financial literacy & education

- Indonesia: Cole-Sampson-Zia (2011) find no more likely to open savings acct, whereas small subsidies do much more
- India: Field et al. (2010) no impact on prob of saving

- Several recent review articles (Hastings-Madrian-Skimmyhorn 2013; Karlan-Ratan-Zinman 2013; Fernandes-Lynch-Netemeyer 2014) conclude that evidence is scant, mixed, and on the whole negative
Previous literature

- Mostly positive results from access
  - Subsidies: Dupas-Robinson (2013) and others generally find more accounts and more usage
  - Branches: Burgess-Pande (2005) and Ashraf-Karlan-Yin (2006) find both increased saving and increased downstream outcomes such as income
  - Youth: Bruhn *et al.* (2013) find that fin ed in high school leads to increased knowledge and [self-reported] saving

- Contrast to the mostly negative (neutral) evidence on access to microcredit, e.g. Banerjee (2013)
Background

- Uganda has a very young population (52% under age 15); current actions may have a large effect
- Generally low savings rate (even compared to e.g. Kenya) – can ‘move the needle’ and develop habits
- Partnered with FINCA, a registered bank in Uganda owned by a non-profit in the US
- Small communities, often no bank branches within 1-2 hours; usually expensive to maintain accounts
Intervention

- Randomized 240 Church of Uganda youth groups into four arms: control, Educ only, Account only, and Educ+Account
- Each group has 15-40 members, although not all active, with an average age of 24.5
240 youth clubs

- 25%: Control
- 25%: Financial Education
- 25%: Account Access
- 25%: Educ + Account
**Intervention**

- Randomized 240 Church of Uganda youth groups into four arms: control, Educ only, Account only, and Educ+Account
- Each group has 15-40 members, although not all active, with an average age of 24.5
- Baseline survey of 2810 youth
- Endline survey (final $n=2680$ or 95%) one year later, roughly 9 months after interventions
- All results are “intent-to-treat” or ITT
## Baseline characteristics

<table>
<thead>
<tr>
<th></th>
<th>Account only</th>
<th>Educ only</th>
<th>Account +Educ</th>
<th>Control</th>
<th>f-test p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportion female</td>
<td>0.43</td>
<td>0.41</td>
<td>0.42</td>
<td>0.44</td>
<td>0.33</td>
</tr>
<tr>
<td>Has formal account</td>
<td>0.12</td>
<td>0.13</td>
<td>0.17</td>
<td>0.13</td>
<td>0.71</td>
</tr>
<tr>
<td>Proportion in school</td>
<td>0.37</td>
<td>0.39</td>
<td>0.38</td>
<td>0.39</td>
<td>0.72</td>
</tr>
<tr>
<td>Income last 90 days ('000 USH)</td>
<td>147</td>
<td>146</td>
<td>169</td>
<td>141</td>
<td>0.42</td>
</tr>
<tr>
<td>Club has money</td>
<td>0.82</td>
<td>0.70</td>
<td>0.77</td>
<td>0.83</td>
<td>0.24</td>
</tr>
<tr>
<td>Club has account</td>
<td>0.07</td>
<td>0.05</td>
<td>0.08</td>
<td>0.07</td>
<td>1.0</td>
</tr>
</tbody>
</table>
Financial education

- Developed by IPA, Freedom from Hunger, and Straight Talk Foundation
- One 90-minute session per week for 10 weeks
- Mean attendance 4.7 sessions (with 75% $\geq 1$)
- Focused on saving, but also general finance:
  - Myths about banks
  - Saving vs borrowing
  - Goal-oriented saving
  - Budgeting and spending
  - Challenges, including negotiating around money
Group accounts

- Simplified opening procedure; no fees then or later
- Required to make a deposit within 30 days of opening, and to maintain balance of 50000 USH
- One account per group, with multiple co-signers
- This decreased transaction costs, but required more trust (one reason to use existing church groups)
- Everyone trained to read / use ledger for keeping track of individual balances
- 66% of treatment groups opened an account
Data and methods

- Baseline and endline surveys include
  - Basic demographics; some risk, time, & social preferences
  - Work, income, and consumption measures
  - Financial knowledge
  - Borrowing, lending, and saving behavior

- Admin savings data from the two Account arms

- Estimate effects of each treatment (using dummy for assignment) on various outcomes
  - Controls: demographics; baseline values when possible
  - Fixed effects for region and initial club savings level, which were both used for stratification
## Results: inputs

<table>
<thead>
<tr>
<th>LHS:</th>
<th>Financial knowledge</th>
<th>Numeracy</th>
<th>Time prefs</th>
<th>Risk tolerance</th>
<th>Altruism</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acct only</td>
<td>-0.01 (0.03)</td>
<td>-0.01 (0.03)</td>
<td>0.02 (0.03)</td>
<td>0.00 (0.03)</td>
<td>-0.01 (0.04)</td>
</tr>
<tr>
<td>Educ only</td>
<td>0.09*** (0.03)</td>
<td>0.01 (0.03)</td>
<td>-0.01 (0.03)</td>
<td>-0.07** (0.03)</td>
<td>-0.04 (0.03)</td>
</tr>
<tr>
<td>Acct+Educ</td>
<td>0.08*** (0.03)</td>
<td>0.05* (0.03)</td>
<td>-0.01 (0.03)</td>
<td>-0.06* (0.03)</td>
<td>-0.06* (0.03)</td>
</tr>
<tr>
<td>control mean</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>n</td>
<td>2680</td>
<td>2680</td>
<td>2680</td>
<td>2680</td>
<td>2680</td>
</tr>
</tbody>
</table>
Results: saving

Total saving ('000 USH)

- Control
- Account only
- Education only
- Acct + Educ
## Results: saving

<table>
<thead>
<tr>
<th>LHS:</th>
<th>Balance ('000 USH)</th>
<th>99% trim</th>
<th>Total saving ('000 USH)</th>
<th>99% trim</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>bank admin data</td>
<td>survey data</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acct only</td>
<td></td>
<td></td>
<td>52.8 (55.2)</td>
<td>22.8 (26.3)</td>
</tr>
<tr>
<td>Educ only</td>
<td></td>
<td>127.9** (62.0)</td>
<td>56.6* (30.0)</td>
<td></td>
</tr>
<tr>
<td>Acct+Educ</td>
<td>1.21 (1.02)</td>
<td>1.05* (0.45)</td>
<td>17.8 (46.0)</td>
<td>52.3* (27.9)</td>
</tr>
<tr>
<td>comparison mean</td>
<td>1.61</td>
<td>0.49</td>
<td>247.1</td>
<td>185.7</td>
</tr>
<tr>
<td>n</td>
<td>3775</td>
<td>3738</td>
<td>2678</td>
<td>2647</td>
</tr>
</tbody>
</table>
Results: saving & borrowing

- Financial education increases savings
- Account access may also increase savings: positive but insignificant point estimate; not significantly less (in the survey data) from Educ arms
- No significant changes in borrowing, other assets, or expenditures
- Hence increased saving is changing overall wealth
Results: income

90-day earnings ('000 USH)

- Control
- Account only
- Education only
- Acct + Educ
## Results: income

<table>
<thead>
<tr>
<th>LHS:</th>
<th>Earnings in past 90 days ('000 USH)</th>
<th>99% trim</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acct only</td>
<td>30.7 (33.5)</td>
<td>37.0** (16.5)</td>
</tr>
<tr>
<td>Educ only</td>
<td>23.7 (30.7)</td>
<td>45.0*** (16.2)</td>
</tr>
<tr>
<td>Acct+Educ</td>
<td>34.1 (35.2)</td>
<td>53.3*** (18.0)</td>
</tr>
<tr>
<td>control mean</td>
<td>232.8</td>
<td>184.1</td>
</tr>
<tr>
<td>(n)</td>
<td>2679</td>
<td>2652</td>
</tr>
</tbody>
</table>
Results: income & employment

- Earned income increases for all treatment arms, at roughly equal levels.
- This implies there exist downstream effects of the interventions, beyond even savings behavior.
- We do not observe any significant effects on hours worked, business investment, or school attendance.
- However, these are fairly imprecisely estimated, so we cannot distinguish mechanisms linking saving and income.
Conclusion

- Financial education impacts knowledge and behavior.
- We do not observe significant differences in either savings or income between education and access.
- This suggests that they are substitutes rather than complements – and as a byproduct that knowledge may not be necessary for downstream outcomes.
- Policy recommendations would depend on the relative cost-effectiveness of each intervention.
- In the field now to get more detail on source of additional income: what is the mechanism?
Thank you!

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